PATENT SPECIFICATION

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Complete Specification Left: April 29, 1940.

Complete Specification Accepted: Oct. 23, 1940.

PROVISIONAL SPECIFICATION

Improvements in and relating to the Mounting of Fire Hose and like Reels

I, JOHN NICHOLSON, of 5, Oakdale Terrace, Chester-le-Street, in the County of Durham, a British subject, do hereby declare the nature of this invention to be as follows:—

This invention relates to fire hose and like reels.

To facilitate the withdrawal of the hose from a reel, the latter has been arranged to revolve about a horizontal spindle mounted so as to swivel about a vertical hinge. Where the hinge is carried in brackets projecting from a wall or like surface, the reel is free to swing through an arc of 180° and the hose unwinds freely from the reel in whatever direction the nozzle end of the hose is drawn. The reel however projects from the wall in all its positions, and, where the wall is decorated, the reel forms a conspicuous and unsightly protuberance. To avoid this objection, a recess has been provided in the wall and the brackets carrying the vertical hinge of the reel are mounted therein. Where the recess extends on each side of the hinge to a distance not less than the projection of the reel, the latter is still free to swing through 180°, but this entails the provision of a recess of considerable length which is often undesirable. If the hinge brackets are mounted in one end of a recess just sufficiently large to accommodate the reel, the swing of the reel is confined to about 90° and the withdrawal of the hose is retarded in directions beyond the limit of the swing of the reel.

The object of the present invention is to provide an improved mounting for a hinged hose reel whereby to avoid the objections above referred to while permitting the free withdrawal of the hose from the reel in any direction.

According to my invention, I provide a compartment in or on the wall or like surface to accommodate the reel, and I mount the hinge carrying the reel adjacent to an edge of said compartment with its axis approximately level with the frontal surface thereof so that said reel can be swung out from its normal position within said compartment through about 180°.

The hinge is usually vertical, and its pin is preferably hollow and arranged to form part of a conduit whereby the water supply is admitted through the spindle of the reel to the inner end of the hose thereon, which admission of water may be controlled by a valve in the supply pipe or automatically by a valve within the spindle of the reel actuated or released by the rotation of the reel when the hose is drawn therefrom.

The compartment may be wholly recessed into the wall or the like, and may be of rectangular or other desired shape. The recess is of sufficient depth and extent to accommodate the reel with comfortable clearance. The vertical hinge of the reel is conveniently arranged with its axis parallel with and immediately beyond the vertical edge of the recess and approximately level with the surface of the wall. The reel is mounted on a horizontal spindle supported by an arm from said hinge. Where the pin of the hinge is hollow to convey water to the hose, said arm is also hollow and communicates with said pin and with the spindle of the reel.

The wall recess may be open, in which case the reel is always visible for inspection. If desired, however, the arm which forms the supporting connection between the hinge and the spindle of the reel may carry a panel or door which, when the reel is wholly in its recess, may fit snugly into a rebate around said recess and lie flush with the surface of the wall. The panel or door may be provided with a lock and decorated to correspond with the wall surface so that, when closed, it will blend therewith without appreciable break, the hinge of the reel projecting only slightly from the wall.

Alternatively, the compartment may comprise a box of rectangular or other desired shape suitably attached to the wall or the like and wholly or partially protruding therefrom, in which case the reel is mounted within the box with its vertical hinge on an outer vertical corner of the box. The arm of the reel may carry a panel or door as above described.

Price

Dated this 28th day of April, 1939.

MEWBURN, ELLIS & CO.,
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3, St. Nicholas' Buildings,
Newcastle-upon-Tyne, 1.

COMPLETE SPECIFICATION

Improvements in and relating to the Mounting of Fire Hose and like Reels

I, JOHN NICHOLSON, of 5, Oakdale Terrace, Chester-le-Street, in the County of Durham, a British subject, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

This invention relates to fire hose and like reels.

To facilitate the withdrawal of the hose from a reel, the latter has been arranged to revolve about a horizontal spindle mounted so as to swivel about a vertical hinge.

Where the hinge is carried in brackets projecting from a wall or like surface, the reel is free to swing through an arc of 180°, and the hose unwinds freely from the reel in whatever direction the nozzle end of the hose is drawn. The reel however projects from the wall in all its positions, and, where the wall is decorated, the reel forms a conspicuous and unsightly protuberance. To avoid this objection, a recess has been provided in the wall, the brackets carrying the vertical hinge of the reel being mounted therein. Where the recess extends on each side of the hinge to a distance not less than the projection of the reel, the latter is still free to swing through 180°, but this entails the provision of a recess of considerable length which is often undesirable. If the hinge brackets are mounted in one end of a recess just sufficiently large to accommodate the reel, the swing of the reel is confined to about 90°, and the withdrawal of the hose is retarded in directions beyond the limit of the swing of the reel.

The object of the present invention is to provide an improved mounting for a hinged hose reel whereby to avoid the objections above referred to while permitting the free withdrawal of the hose from the reel in any direction.

According to my invention, I provide a fire hose or like reel carried by a hinge mounted adjacent to an edge of a compartment or box capable of accommodating said reel, the axis of said hinge lying immediately in front of the plane of the frontal surface of said compartment or box so that said reel can be swung out from its normal position therein through about 180°.

The compartment may comprise a recess in the wall or the like on which the hose reel is mounted, and may be open or provided with a panel or door, or the compartment may comprise a box suitably attached to the wall or the like and wholly or partially protruding therefrom.

The accompanying drawings illustrate by way of example one construction of hinged hose reel mounted in accordance with my invention. In the drawings

Figure 1 is a plan section on the line X—X in Fig. 2,

Figure 2 is a front elevation, showing the reel housed within its compartment, and

Figure 3 is a similar view to Fig. 2, but to a smaller scale, showing the reel swung out of its compartment into its extreme position.

Referring to the drawings, in the example therein illustrated, *a* is a rectangular compartment wholly recessed into a wall *b* and of sufficient depth and extent to accommodate the hose reel *c* with comfortable clearance. The hinge of the reel is vertical, and its pin *d* is hollow and is connected by a hollow arm *e* to the hollow spindle *f* of the reel, thus providing a conduit whereby the water supply is admitted to the inner end of the hose *g* coiled on the reel.

The admission of water to the hose may be controlled by a valve in the supply pipe (not shown) which is connected to the hinge at *h*, or said supply may be automatically controlled in known manner by a valve within the spindle *f* of the reel actuated or released by the rotation of the reel when the hose is drawn therefrom.

The vertical hinge *d* of the reel is arranged with its axis parallel with and immediately beyond the vertical edge a^1 of the recess in the wall and immediately in front of the surface of the latter. The

hinge is supported by bearings *j* provided on an angle bracket *k* attached to the wall *b* at the edge of the recess *a*. The horizontal spindle *f* of the reel is wholly supported by the arm *e* projecting from the hinge.

The wall recess *a* may be open, in which case the reel is always visible for inspection. As illustrated, however, the hollow arm *e* which forms the supporting connection between the hinge *d* and the spindle *f* is utilised to carry a panel or door *m* which, when the reel is wholly in its recess as shown in Figs. 1 and 2, lies flush with the surface of the wall *b*. It may fit snugly into a rebate around said recess. The panel or door may be provided with a lock and decorated to correspond with the wall surface so that, when closed, it will blend therewith without appreciable break, the hinge of the reel projecting only slightly from the wall. On swinging the reel out of the recess, the panel or door lies against the wall as shown in Fig. 3, and the swing of the reel is not restricted to less than 180°.

Alternatively, the reel may be mounted within a box of rectangular or other desired shape which can be suitably attached to the wall or the like and may be arranged to protrude wholly or partially therefrom. In this case, the hinge of the reel is mounted adjacent to an outer vertical corner of the box. The arm of the reel may carry a door as above described to close the box when the reel is wholly therewithin.

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed, I declare that what I claim is:—

1. A fire hose or like reel carried by a hinge mounted adjacent to an edge of a compartment or box capable of accommodating said reel, the axis of said hinge lying immediately in front of the plane of the frontal surface of said compartment or box so that said reel can be swung out from its normal position therein through about 180°.

2. The combination with a recess in a wall or like surface, or with a box, of a fire hose or like reel hinged on a single axis disposed immediately in front of the plane of the frontal surface of said recess or box and free to swing between a position where it is wholly within said recess or box and one approximately 180° therefrom.

3. A fire hose or like reel as claimed in claim 1 carried by an arm projecting from its hinge, said arm supporting a panel or door whereby the compartment or box is closed when the reel is housed therein.

4. A fire hose reel supported and mounted substantially as herein described and as illustrated in the accompanying drawings.

Dated this 27th day of April, 1940.

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Fig. 1.

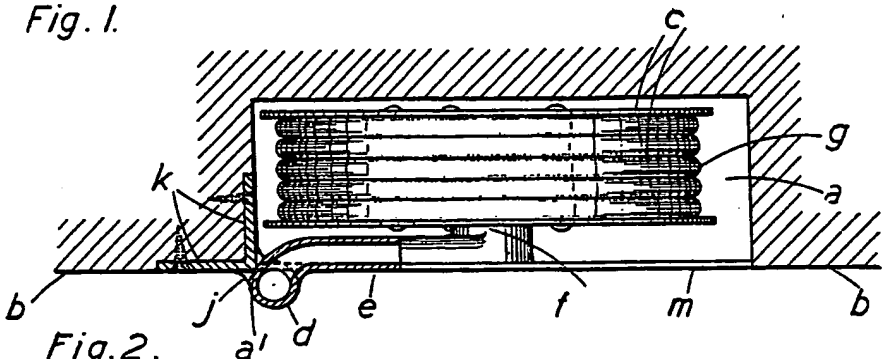


Fig. 2.

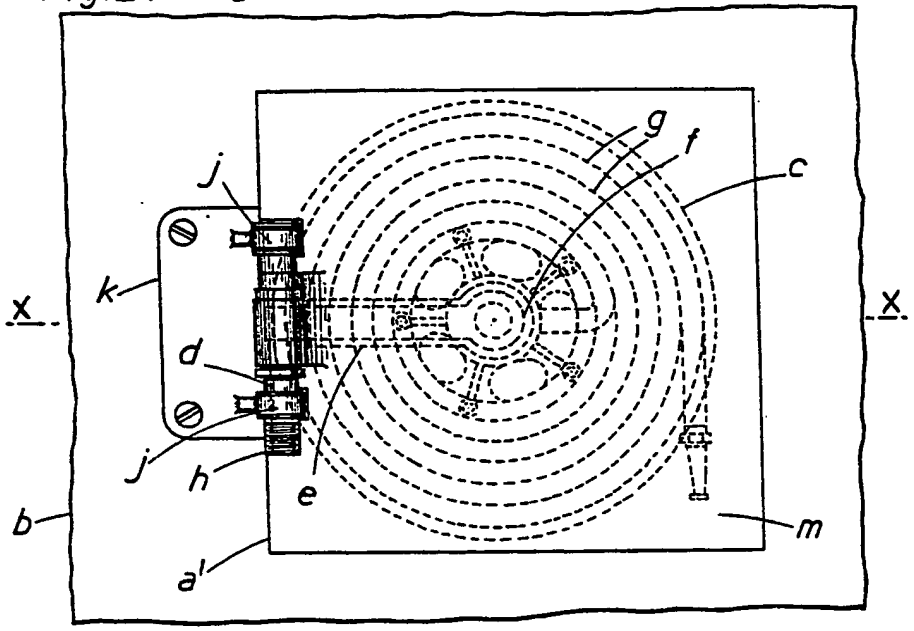
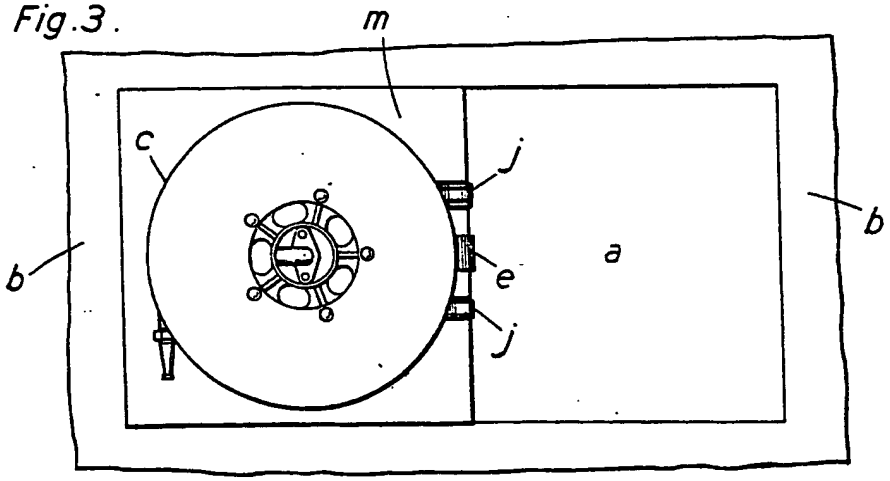


Fig. 3.



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